

COAL MINING

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OCTOBER 1949

VOLUME XXVI, No. 10



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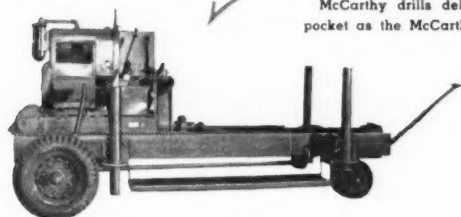
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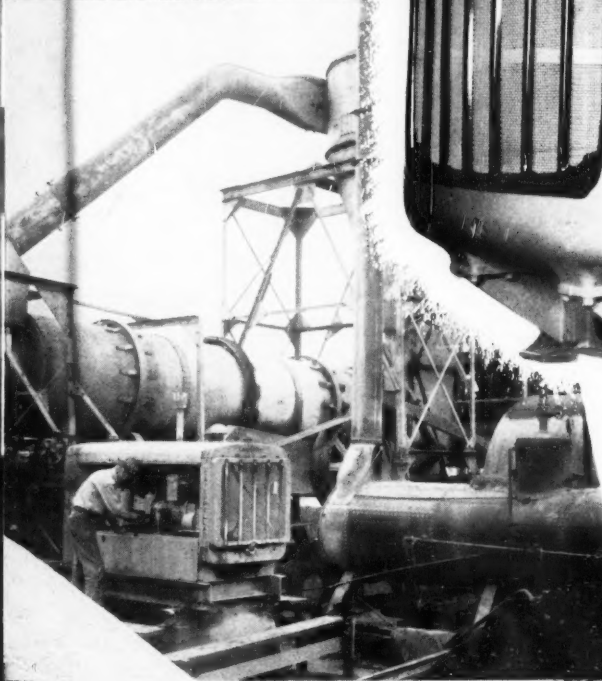
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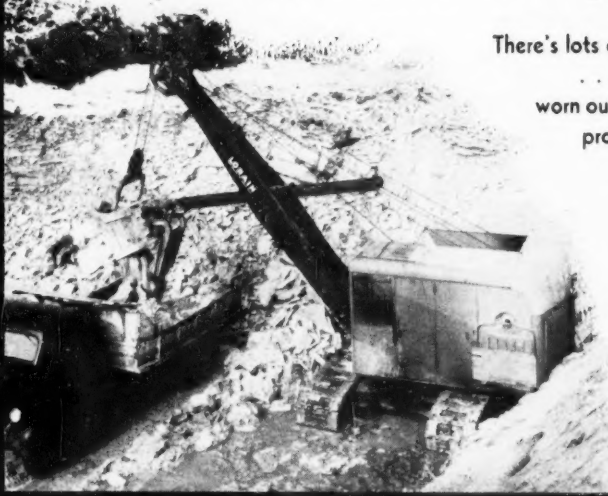
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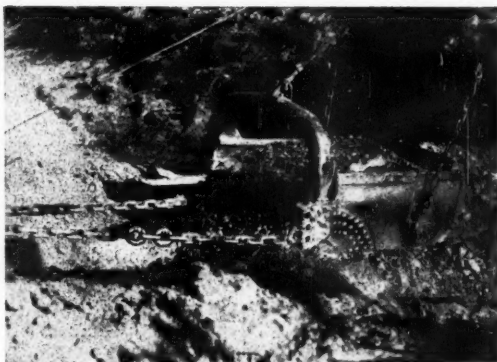
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COAL MINING

Vol. XXVI

OCTOBER, 1949

No. 10

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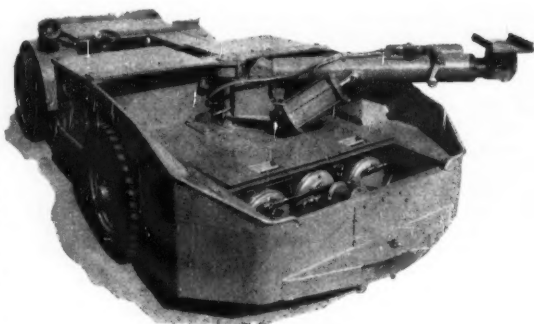
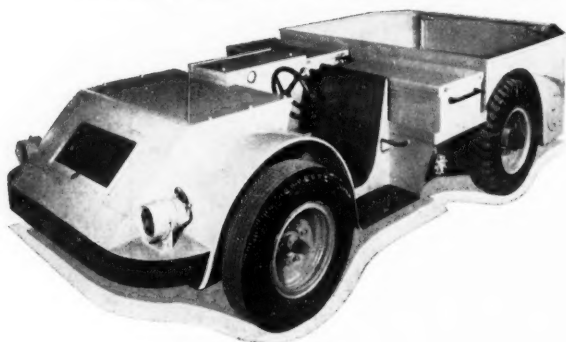
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Operated by two air lifting cylinders
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For handling supply and materials needed for operating and maintenance crew.
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Fully equipped with air operated oil and grease guns for complete lubrication of mining machinery at the working face.
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Equipped with air operated timbering boom and power driven timber saw.
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Wheel base	80"
Timber boom-Max. height	8'-6"
Timber boom-Max. Swing	55° each side of center

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DO YOU KNOW . . . ?

It is a long step ahead from the German process of making gasoline from coal to the methods to be employed here in two new coal-to-oil government plants to be opened here on May 8, the anniversary of VE-Day.

Two processes are to be used in these U. S. Bureau of Mines' pilot plants, both improved from the methods that the Germans used during the war to produce aircraft fuels, motor vehicle gasoline and lubricating oils. One is based on direct hydrogenation or Bergius-Farben process, the other on the gas-synthesis or indirect Fischer-Tropsch method.

These processes are complementary rather than competitive, and the liquid products that each is best adapted to produce range all the way from heavy fuel oils for ships and industry to jet fuels and aviation gasoline.

The first of the two units, a hydrogenation demonstration plant, is now ready for operation. Production capacity is from 200 to 300 barrels a day. The plant is designed for pressure up to 10,300 pounds per square inch in two major operations.

These are the liquid-phase hydrogenation which accomplishes liquefaction of the coal, and vapor-phase hydrogenation which converts the liquefied coal to gasoline and byproducts. Chemically, crude petroleum contains more than twice as much hydrogen as does coal. Thus to convert coal to finished gasoline by this process, hydrogen is added under high pressure and temperature.

The second of the Bureau's new units, a gas synthesis demonstration plant, is scheduled for completion this year. This plant will gasify pulverized coal with oxygen and superheated steam. The resulting gases, a mixture of carbon monoxide and hydrogen, are converted to liquid fuels by the Fischer-Tropsch process.

Coal gasification is not only the first step in both basic processes but the number one cost problem at the present time. For this reason, priority was given to this phase of construction, and runs will be made in this unit while the synthesis unit is being completed.

Liquid stainless steel is made of microscopic flakes of the metal incorporated in a liquid plastic with a solvent to thin it so that it can be applied by brush or spray. It can be used on wood or metal surfaces exposed to fresh or salt water, and to air containing acids and alkalis.

Special registers and grills are used in this so-called Air-Wall system that direct the forced warm air upward in a fan-like pattern in front of the wall. A hidden feature is used of standard four-inch stove pipe, instead of the more expensive rectangular ducts usually installed to bring the hot air to the registers. This lessens the cost of ducts and installation as much as 50%, it is claimed.

Approximately 30% less air is circulated in the new system as compared with customary warm air systems. The air is supplied at somewhat higher temperatures for mixing with room air as it leaves the registers. Good circulation of air within the room is provided, and there is less tendency for the warm air to cling to the ceiling.

A steam turbine of simple but quite unorthodox design, in which a ring-shaped body of water aids in developing full power, is the subject of newly-issued U.S. patent 2,467,990, taken out by C. B. Powledge of Conroe, Texas.

In the conventional turbine, steam is introduced between a central rotor covered with hundreds of cups or blades, and a set of similar "stator" blades attached to the stationary outer casing. In Mr. Powledge's invention it is the outer casing that rotates and delivers power. The centrally located, disk-shaped stator's only function is to distribute steam jets through vents around its periphery, against the relatively few cups carried by the rotating casing.

Water, introduced into the casing, is whirled into a ring-shaped body by centrifugal force immediately after the machine begins to move. The steam jets are delivered into this water, which aids in development of full power, the inventor states.

Noses and ears by mail order are the latest aid to patients who have lost an ear or nose through injury or disease.

The mail-order ears and noses are replacements for artificial ones that have deteriorated or lost their lifelike coloring. They are possible through a permanent mold method devised by Dr. Arthur H. Bulbulian of the Mayo Clinic. He has been constructing artificial noses and ears, medically known as prostheses, since 1936, and has made them for nearly 200 patients.

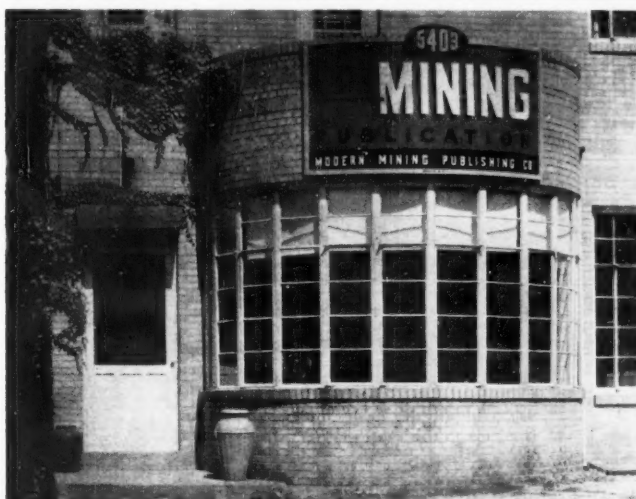
The Honorable Richard Maize, Secretary of Mines, Commonwealth of Pennsylvania, is back on the job after an operation and rest which seemed to have done him lots of good. Here he is discussing a pertinent matter at a recent meeting of the Pittsburgh Coal Mining Institute.

Here and There In The Coal Industry

A team representing the Island Creek Coal Company names 24 and 26 Ragland won first place in the First Aid and Mine Rescue Meet of the Mingo County Mining Institute held at Williamson, W. Va. Second place went to the team representing the Red Jacket Coal Corporation, Red Jacket, W. Va., and third place was won by the Howard Coal Company team, Chattoe, W. Va. In the colored division first place was won by the Laudo Corp. team of Laudo, W. Va.

John T. Wilson, President, Winco Block Coal Company, Bluefield, West Virginia, died recently at Bluefield.

R. H. Knoke, President of the Stongest Coke and Coal Company, Philadelphia, Pa., was elected President of the National Coal Association for the ensuing year. George H. Love, W. C. Shank, and Laurence Tierney, Jr. were elected Vice-Presidents. E. H. Davis, President of the New York Coal Co., Columbus, Ohio, was elected Treasurer. J. D. Battle was elected Executive Vice President.



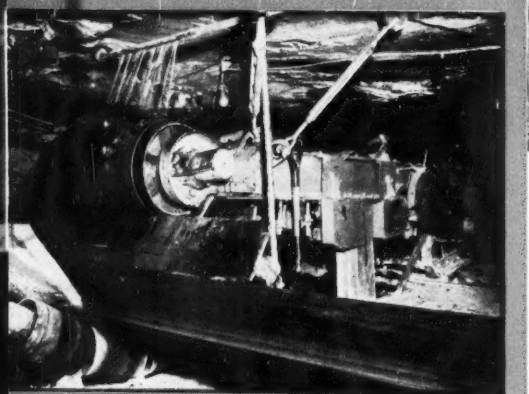
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Kanawha Valley Mining Institute

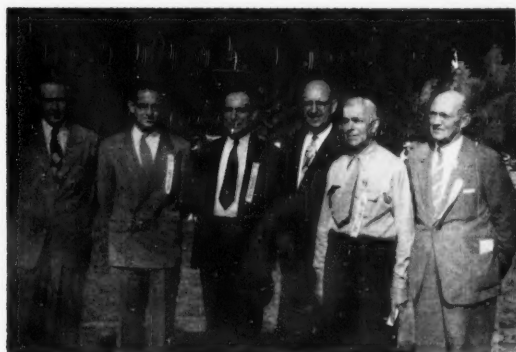
The Kanawha Valley Mining Institute held its 18th Annual Safety Meeting at Montgomery, W. Va., on Saturday, October 1. It was estimated that 12,000 persons attended this meeting and it could have been the largest Safety Gathering ever held in the state of W. Va.

The all-day meet started with a parade of nineteen floats depicting various phases of safety. In the procession were 8 high school bands, American Legion color guards, and members of the various teams competing in the first aid contests.

First place in the safety contest in the white division was won by a team representing the Carbon Fuel Company. Honors for second place in the white division resulted in a tie between teams representing the Electro-Metallurgical Company at Alloy and the Semet-Solvay Com-



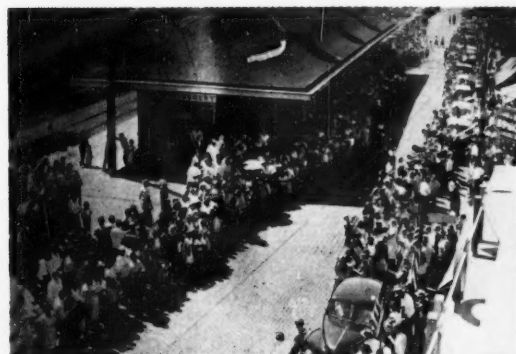
Contestants in the Kanawha Valley Mining Institute's 18th Annual Safety Meet.



Left to right are officers of the Institute: Wm. Buchanan, treasurer; Lee M. Morris, secretary; C. L. Milligan, executive vice president; P. O. Hamer, second vice president; Major A. W. Fluegel, first vice president, and R. F. Overly, president.



Wives of coal miners in the white group of beauty contestants. Seated also are the judges of the contest.



Crowd awaiting the Safety Day parade in Montgomery.



Gauley Bridge High School Band.



Float of Montgomery Junior Woman's Club.



Float sponsored by the Montgomery Parent Teacher's Association.

pany team from Langaire. First place in the colored division was won by the Elkridge team of the Eastern Gas and Fuel Associates. Second place in the colored division was won by the Powellton team of the Eastern Gas and Fuel Associates.

Nation-wide toll dialing for long-distance telephone calls is promised for the relatively near future. With the addition of new toll dialing networks centering in New York and in Chicago, the Bell System is now handling approximately 10% of its long-distance calls by the new automatic switching method.

The Bell Systems program for nation-wide toll dialing is based on the development of a new electronic switching equipment which can select possible routes between distant cities, direct switching operations at intermediate points along a route, and complete connections automatically in a matter of seconds, the Record declares. When installations are completed, the average speed of all long-distance calls is expected to be about one minute, or about half the time now required.

MOST ELECTRICAL HAZARDS AND FAILURES IN COAL MINES CAN BE PREVENTED

In the following table are divided into 5 groups the results of leakage current measurements in 320 typical sections of power distribution circuits and mining equipment with trailing cables:

Equipment and circuits in Groups 1 and 2 were in satisfactory operating condition. Some minor defects were located in the 20 to 30 milliamper leakage range of Group 2.

In Group 3 the cause of leakage was located by careful visual inspection and corrected without difficulty.

In Group 4 the presence of fire and shock hazards was obvious. Total failure would have occurred if defects had not been located and

corrected at this stage.

Equipment and circuits in Group 5 were definitely dangerous. These were taken out of service until repaired.

Note: Routine inspection failed to locate defects in Group 2 and most of the defects in Group 3, but

after the existence of leakage was determined by test, some defects in Group 2, and all defects in Group 3 were located by careful inspection and a process of eliminating questionable conditions. After a little practice this process locates defects quickly.

Group	Leakage Current in Milliampere	Measurements		Insulation Resistance in Megohm*
		Number	Percent	
1	Less than 1	156	48.75	0.25 or higher
2	1 to 30	82	25.62	0.008 to 0.25
3	30 to 50	50	15.62	0.005 to 0.008
4	50 to 100	23	7.19	0.0025 to 0.005
5	over 100	9	2.81	less than 0.0025



Contestants in the Negro beauty contest.



H. S. Moore and W. G. Moore of W. G. Moore and Son, sponsors of the luncheon and afternoon entertainment.

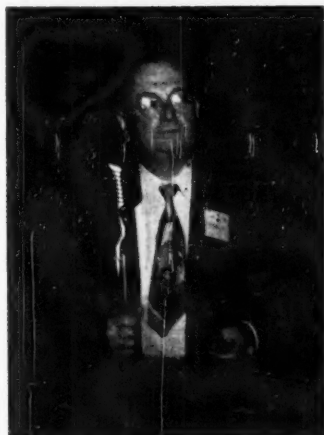


Left to right: J. E. Kragle, Mining Engineer, C. W. Davis, General Manager, and H. B. Swope, Jr., President, both of the Middle Pennsylvania Coal Corporation.

Central Pennsylvania Open Pit Mining Association Meets At Philipsburg

The Central Pennsylvania Open Pit Mining Association held its Annual Field Day at the American Legion Country Home, near Philipsburg, Pennsylvania, on Thursday, September 15. A luncheon and other refreshments and entertainment by courtesy of the Moore's Industrial Supply Company at the Legion Country Home started about 1 p.m.

and lasted throughout the afternoon. Golf matches were played at the Philipsburg Country Club and started at 12:30 p.m. Dinner was served at 7 p.m. and was attended by a large group of coal strippers and their friends. Door prizes were distributed after the dinner and consisted of some very nice merchandise.



G. Albert Stewart addressing the gathering before dinner.



Left to right: B. W. Derringer, of the Central Pennsylvania Producers Assn., A. W. Gauger, United States Bureau of Mines, and the Honorable Richard Maize, Chief, Department of Mines, of Pennsylvania.



Left to right: B. M. Du Bois, Sr., B. M. Du Bois, Jr., and S. S. M. Du Bois of the Du Bois Coal Mining Company.



Above left—J. H. Wallins and G. Albert Stewart, Executive Secretary of the Association.



Above right—Charles R. Strader, George Maiklejohn, and Joe Radomski.

A group of the Highway Equipment Company salesman, who attended the Philipsburg Field Day. On the extreme left are H. S. Moore, of the Moore's Industrial Supply Company and



Below left—Left to right: George Bowers, K. L. Hetrick, and C. E. Moore of Moore, Bowers, and Hetrick Company.

Below right—Left to right: J. B. Carey, District Freight Agent, Pennsylvania Railroad, Lewis Stein, Elliott Coal Mining Company, P. M. Roefer, Superintendent, Pennsylvania Railroad.



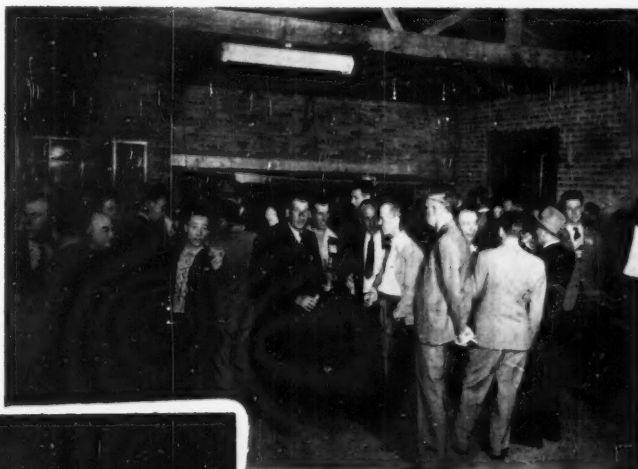


Left to right: M. A. Bymer, Frank B. Work, Sr., W. C. Hughes and L. W. Dickson, the latter two of the Wilkes Coal Company, Osceola, Pa.



Left to right: Lex Bailey, B & B Constr. Company, Dave Blount, Owner, Cavalier Coal Company, Altoona, Pennsylvania, and R. L. Aikin.

A group of attendants enjoying refreshments just before dinner.



H. D. Fleck, R. D. Jones, Putnam and Green, William Meyer, Meyer Brothers and J. C. Rice of Putnam and Green.



PATENTS

A device intended to prevent automobiles from skidding is the subject of U. S. patent 2,463,634, just issued here to Ernest L. Martinis of Southgate, Ky. It consists of a pair of cylinders some eight or 10 inches in diameter, with short spikes to bite into the slippery road surface. These are mounted directly back of the rear wheels, but are kept swung up out of sight in the stream-lined rear portions of the rear fenders when not needed. When an emergency arises, quick pressure on a pedal swings them down until they bear on the road surface. At the same time, a pair of small rollers interposed between them and the wheels transmits power from the tires to the spiked rollers, causing them to turn in the same direction as the wheels. The spikes automatically claw for a firmer hold on the road, and the skid is brought to an end.

More Than 100 Attend NCA Regional Meeting In Denver, Colo.

Operators and others numbering more than 100 attended a regional meeting of the National Coal Association, held at Denver, Colorado, August 3, in which NCA Officers and staff members participated.

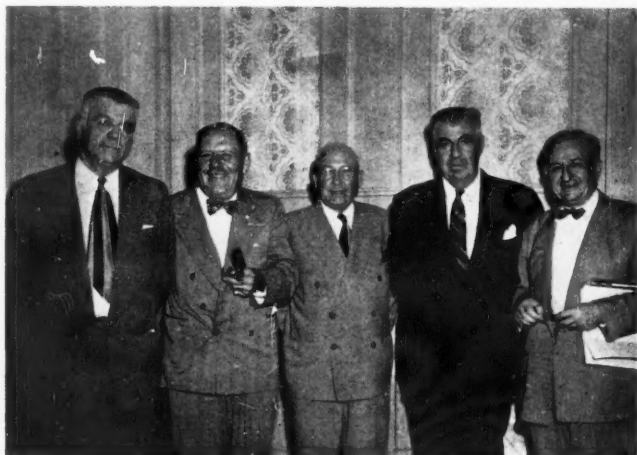
George H. Rupp, Manager, Mining Department, Colorado Fuel & Iron Corp., presiding in the morning, emphasized the vital importance of coal in the U. S. economy. He said that the Far West represented only about 6½% of national production, but its reserves were estimated to be from 73 to 80%. He added that he felt that in the long-term future the Far West would be the basis of the country's industrial power because of its coal reserves. Mr. Rupp noted that everyone had heard a great deal about the UMW, but not so much about NCA. He said the National is doing things of tremendous importance; that its activities are of great interest to Far Western operators. He pointed out a special interest in the powdered coal turbine and progress in synthetic fuels, adding, "Out here we certainly can't get alarmed about the future of the coal industry."

Charles A. Owen, NCA President, speaking on "Cooperative Effort at the National Level," reported that the Far Western members of NCA were drawn from 10 states; that these were "firm in their support of the Association." After reviewing the various NCA departments and affiliates, he discussed the new Natural Resources Committee, stating it had been formed to study and analyze competitive fuel markets; that at present in the East oil could "just go in and take markets from us" because they sell fuel "so far below us that coal can't compete."



Mr. Owen then noted that the monopolistic labor situation had "reached a point where it would have to change." He said NCA needed complete support of the industry in its effort to remove labor from anti-trust exemption.

John D. Battle, NCA Executive Vice President, gave a "Review of Activities and Discussion of the Future Program of the Association," calling for "faith in those who establish the policies of the Association, and faith in those who carry out the policies." He reviewed the Bluefield and White Sulphur Springs conferences, bringing his audience up to date on what had occurred at those wage negotiations.



Afternoon shift of miners ready to enter Vesta No. 5 Mine of the Jones and Laughlin Steel Corporation at Vestaburg, Pa.

"Joy Core Drill Supplies and Equipment" is the title of a new catalog on auxiliary core drilling equipment recently issued by Joy Manufacturing Company, Henry W. Oliver Bldg., Pittsburgh 22, Pa. For use by all owners or operators of core or diamond drills, this 36-page catalog, Bulletin D-18, contains illustrations and specifications for a complete line of core barrels, bits, drill rods and other equipment necessary for diamond core drilling operations. When requesting bulletin please state type core drill on which equipment will be used.

Future Einsteins and Curies May Win Advanced Training

By MARGARET E. PATTERSON
Secretary, Science Clubs of America

A boy or girl in the senior class of the high school near you may be a future Einstein or Curie.

Those neighborhood kids you have watched grow up with their model airplanes, experimental animals, homemade telescopes, whining electronic gadgets and chemical conglomerations may be the ones who will be changing our world of the future.

A great search for youngsters with inventive flare and creative genius in science is now on.

Finding Scientists

You can help find these scientists of tomorrow by telling the talented boys and girls you know that scholarships for further training in science are waiting for them.

Like hundreds of others before them they may be nationally recognized and speeded along to scientific productivity by winning in the Science Talent Search for the Westinghouse Science Scholarships, conducted annually by Science Clubs of America, administered by Science Service.

A total of 320 young scientists have been discovered through this search since 1942. These winners, along with 2,080 named as honorable mentions, are now enthusiastically pushing back science frontiers.

Youthful Scientists

Do high school seniors seem too young to be taken seriously as scientists? During the eight years of the Science Talent Search the records, made by the young scientists named for honors, have convinced scientists and the public in general that a high school senior with a talent for science is a rare and very valuable individual.

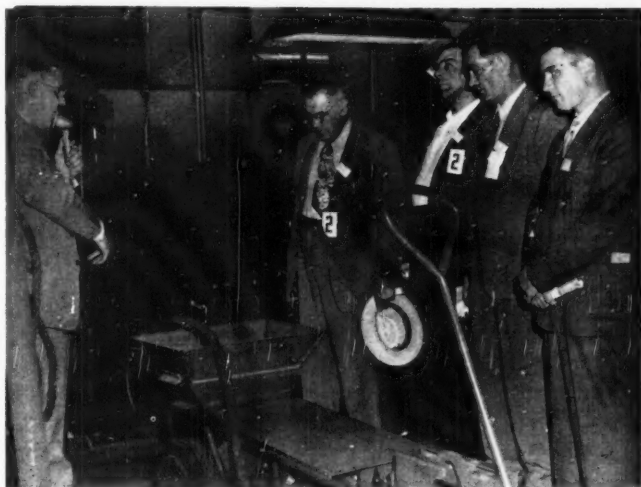
As a sample of their accomplishments let's look at the records of eight typical winners, only a few months or a few years removed from their high school graduation.

H. S. GRADUATE 1949—During three summer vacations a high school boy roamed on foot and by boat studying and collecting mollusks (clams, snails, etc.) on a tiny island off the Atlantic coast. When he wrote the results of his diligent explorations he had raised the number of known species on the island from 46 to 120. His careful analysis of the mollusks that once lived on that island and those that do now is so highly respected by authorities in the field that the work is being pub-

lished by a large eastern university. The 17-year-old boy, Dwight Taylor, is now a freshman at the University of Michigan, continuing his study of paleontology.

H. S. GRADUATE 1948—Making organic chemicals combine may be dangerous because of the constant threat that the reagents used can explode. A high school boy, whose

hobby has been chemistry since he came to the U.S.A. from Hungary as a child, was intrigued by this problem. In 1948 he announced success in his quest for chemicals to replace the dangerous ones in a paper so important it was reported in full in two national magazines for professional chemists. The 17-year-old, Andrew Kende, is now a sopho-



Steven Williams (center, holding hat), chief of the Ohio Department of Mines, and new president of the Mine Inspectors Institute, examines a new MSA Faceduster, recently developed by Mine Safety Appliances Company for rock dusting mine faces. With Mr. Williams is a group of mine inspectors. They were among 400 who participated in a tour through the MSA plant during the recent convention in Pittsburgh of the Mine Inspectors Institute. Explaining the new Faceduster is George Alston, MSA representative (left).



Model 22 Wayne Mobile Shovel loading coal at the Aughenbaugh Coal Company near Clearfield, Pa.



George Yoxtheimer stands by the four-place Ryan Navion which helps him to carry on his efficient bituminous strip mining operations at Punxsutawney, Pa. Extra passengers and loads of heavy machinery repair parts go with him on most of his flights.



Loading out a nine foot seam of coal in an Illinois strip mine.

more at the University of Chicago, majoring in organic chemistry.

H. S. GRADUATE 1947—At an age when most girls are still playing with dolls, one was learning about microscopic plants and animals. By the time she was a high school senior her knowledge of *Drosophila melanogaster* (fruit flies to you) was so advanced she was the working partner of a college professor of genetics. Today ability like hers with micro-techniques assures you safety if you are prescribed either of two still rare, new antibiotics. All this past summer she has painstakingly standardized the reactions of bacteria to chloromycetin and neomycin at the Cold Spring Harbor station of the Carnegie Institution of Washington. She is Rada Demerec, 19-year-old junior at Swarthmouth College, majoring in biology and considering medicine as a career.

H. S. GRADUATE 1946—Nuclear physics has interested one young man as long as he has known about science. By the time he was a high school senior, he had built his own cosmic ray counting apparatus and could compare its results favorably with that of equipment available commercially for many times the price.

When he entered the University of California at Berkeley he began to help in the Radiation Laboratory on assignments far beyond those usually given to a college freshman. Now a senior there, he holds the position of senior lab technician in the same laboratory where he has worked off hours and summers for his whole college career.

The work David Cudaback does for an Atomic Energy Commission project is on the classified list so we can only guess at the seriousness of it.

H. S. GRADUATE 1945—On July 1, 1949, the USS Norton Sound left the West Coast bound for six weeks in the Pacific. On board, a party of scientists, jointly sponsored by Princeton University and the Office of Naval Research, was seeking information about cosmic rays in order to shed further light on nuclear burst process. Among them was Kirby Dwight, Jr., 21-year-old graduate physicist from Princeton, getting his first taste of in-the-field of atomic research, and helping to find one more key to the riddle of atomic power.

H. S. GRADUATE 1944—Graduating from high school at 14 is looked upon with some wonder but when a boy does that and also wins one of the big scholarships in a na-

tional competition for young scientists the wonder grows.

An Alabama boy in 1944 had done such advance work with thio-plastic that even the judges of the Science Talent Search were amazed. He went on at his rapid stride to graduate at 17 from Massachusetts Institute of Technology and to accept a job with duPont.

By going to school at night, he earned a master's degree at 18 from the University of Delaware. Then getting a leave of absence from his job he enrolled at Caltech. In August, 1949, at 20 he is Dr. Rodman Jenkins, Ph. D. in chemical engineering, to prove that promise at 14 can be a reality at 20.

H. S. GRADUATE 1943—Mathematics is basic to all sciences and often is so basic to new discoveries that it must be kept secret. This is true of projects like one being done for the Office Naval Research at Cornell University. Working on it is Dr. Murray Rosenblatt, 23-year-old Ph. D. in mathematics from Cornell.

H. S. GRADUATE 1942—At the Lewis Flight Propulsion Laboratory of the National Advisory Committee for Aeronautics in Cleveland, Ohio, fuels adequate for jet planes must be perfected. Selecting, synthesizing and testing new and better hydrocarbons is the job of men like Dr. Wolf Karo, 25-year-old Ph.D. from Cornell University. Since his arrival from Germany, shortly before World War II, he has never deviated from his goal of becoming an organic chemist.

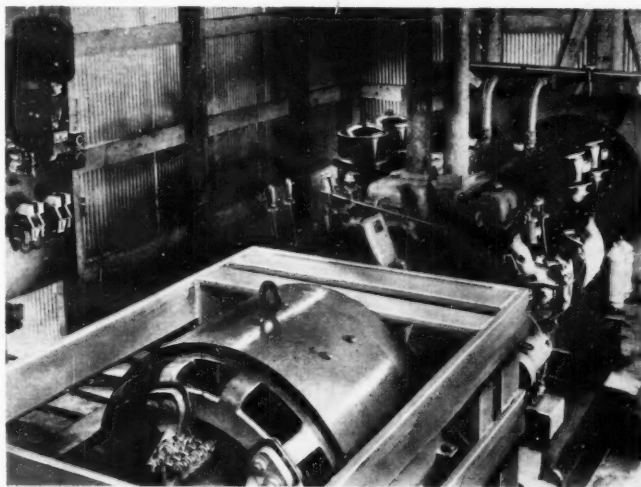
New Search Begins

The Ninth Annual Science Talent Search, now on, will locate other young scientists like these spotted during the past eight years.

The 16,000 boys and girls expected to enter the competition this year have been busy with practical experience in science during their vacations and are now back at their high school studies. Seniors in public, private and parochial schools will report on the results of their investigations and experiments in a 1,000-word essay on "My Scientific Project," one of the requirements of the Science Talent Search which ends Dec. 27, 1949.



Shown as it is being delivered to the Homestead Mine, Earlington, Ky., this new Dart coal hauler is powered with a 275 hp Model NHB-600 Cummins Diesel and is equipped with a 45-ton capacity bottom dump trailer. A total of 14 Cummins-Powered hauling units is now in operation at this coal stripping mine.



At Widnoon Mine, Kittanning, Pa., this 200 kw a.c. generator set was assembled and installed by Highway Equipment Co., Pittsburgh. It is driven by a Series 71 Twin 6 GM Diesel.

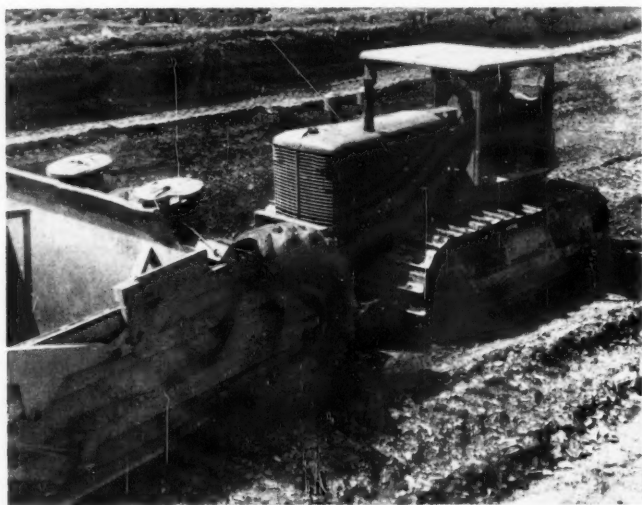
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Drills holes faster—Will not snap off shank or chip points—Outlasts four or five ordinary augers.

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A model HD-19 Allis-Chalmers tractor pushing a LeTourneau scraper at the strip operation of Moore, Bowers & Hetrick of Coalport, Pa.



All concrete underpass at a large strip mine in Western Pennsylvania.



Filling mine locomotive sand box from overhead sand dryer at the Ebensburg Coal Company, Colver, Pa.

The 40 chosen as winners will be announced early in 1950 and will be invited to the five-day all-expenses paid Science Talent Institute in Washington, D. C., in March. Here one boy or girl will be selected to receive a Westinghouse Grand Science Scholarship of \$2,800; one of \$2,000 will go to the runner-up. Other trip winners will receive scholarships ranging from \$100 to \$400, all made available through the Westinghouse Educational Foundation.

In 15 states where State Science Talent Searches have been set up to run concurrently with the national competition, the fortunate entrants will have a double chance of placing in the national or state contest and are thus assured of additional opportunity for college educations.

Successful Experiment

The Search was started as an experiment by Science Service and the Westinghouse Electric Corporation to provide an adequate supply of promising young scientists for the continuing development of American science.

The experiment has indicated clearly that talented young scientists can be located by the time they are high school seniors. Scholarships and recommendations have made it possible for hundreds of boys and girls, who might not otherwise have had the incentive or financial assistance, to continue their education in science and to develop further their rare gifts of science talent.

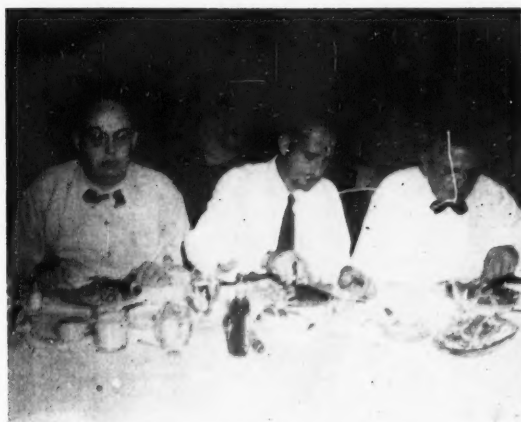
With this country thrust more and more into a position of world leadership in science this successful experiment is of even greater value to the strength and security of the United States than when it was originally planned.

Young Scientists Everywhere

Size of school and its geographical location seem to have very little to do with winning in the Science Talent Search. Promising young scientists appear to be almost everywhere in the U. S.

Winners receive handsome bronze plaques to present to their schools. Forty proud high school seniors will be giving them to their school next spring at commencement time. Perhaps that high school near you will be getting one for the first time or adding a new one to its collection. They will signify 40 more boys and girls launched on a career of service through science.

Complete details of the Ninth Annual Science Talent Search may be obtained by writing to Science Clubs of America, 1719 N St., N.W., Washington 6, D. C.



Left to right: W. G. Stevenson, General Manager, Hillman Coal & Coke Co.; Jim Hamilton, Vice President, Island Creek Coal Company, Holden, W. Va.; Frank Dunbar, retired.



Frank Dunbar and Dick Johnson of Mine Safety Appliances Company present Jim Hamilton with a set of golf clubs. Presented to Jim Hamilton.

Meeting Of The Bituminous Coal Operators Golf Association August 11, 1949

The Uniontown Country Club meeting of the Bituminous Coal Operator's Golf Association of Western Pennsylvania, held on Thursday, August 11, gave Jim Hamilton a very friendly and rousing send off to his new position as Vice President

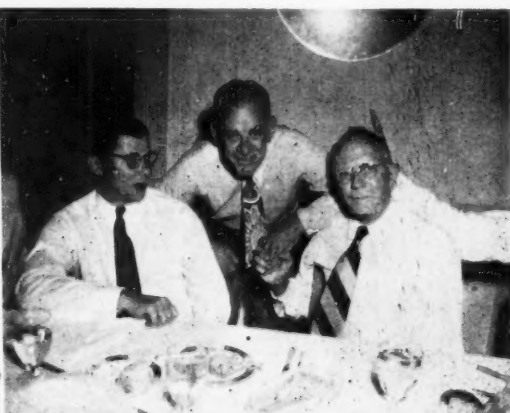
in Charge of Operations for the Island Creek Coal Company. Jim Hamilton will make his home at Holden, West Virginia.

The day was pleasant and an unusually large number of players turned out for golf. Color motion

pictures were taken of the golfers in action on the first tee-off, on the putting greens, and on the fairways. Color motion pictures taken at the previous party at the Nemaquin Country Club were shown at this . (Continued on page 24)



John S. Schroeder, A. Reed Schroeder, and W. E. Schroeder of the Schroeder Brothers, Pittsburgh.



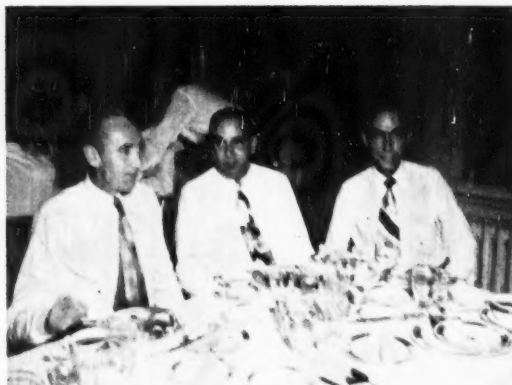
Joseph W. Oliver, Assistant Vice President, Pittsburgh Consolidated Coal Company; Mark Simpson, Sales Representative, Templeton, Kenly & Company, and George Wyant, Superintendent, Indianola Mine Republic Steel Corporation.



K. W. Bartlett, Superintendent, Carolina 43 Mine, Bethlehem Collieries; G. J. French, Representative, Farmers Engineering, and W. P. Place, Sales Engineer, Farmers Engineering.



Bill Schiffbauer, Foreman, Buckeye Coal Company; Chief Arentzen, President, Lee-Norse Company; Art Shannon, Fairmont office, Jeffrey Mfg. Company.



J. Z. Linsenmeyer, Manager, Mining, Petroleum & Chemical Section, Westinghouse Electric Corporation; C. N. Replogle, Flood City Brass & Electric Company; D. E. Renshaw, Engineer, Mine Locomotive Division, Westinghouse Electric Corporation.



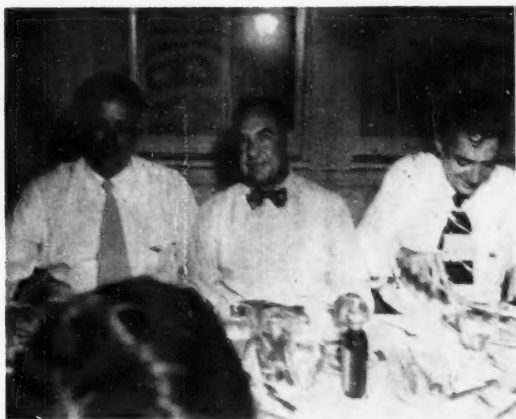
W. C. Wilson and Robert E. Edgar of the Watt Car and Wheel Company and Fred O. Fowler of Thomas Brown, Inc.



Left to right: A. G. Suebert, West Penn Power Company, and H. J. Lang, Industrial Electric Company, Washington, Pa.



J. C. Durfee, Superintendent, Robena Cleaning Plant; F. W. Branch, Whitney Chain and Manufacturing Company, and A. J. Stephenson, Fairmont Machinery Company.



Leo J. Schulte, Mosebach Electric & Supply Company, H. H. Madera, Carpentertown Coal Coke Company and L. F. Marshall, Mosebach Electric & Supply Company.



C. W. Thompson, Assistant Manager, Weirton Steel Company and John Spuregon, Attorney, Uniontown, Pa.



Left to right: Charles M. Mordesovich, Crucible Fuel Company; H. L. Dunbar, President, Superior Supply Company, Pittsburgh, and Scotty Grove, Crucible Fuel Company.



Max Lambert, Hewitt Rubber Company, Pittsburgh, and on the extreme right, G. G. Kingslev, General Electric Company.



G. W. Kepier, Jr., Assistant Purchasing Agent, Pittsburgh Coal Company; S. E. Kane, Mosebach Electric and Supply Company, and Ed Vant, Jeffrey Manufacturing Company.



Left to right: Art Goodwin, Assistant Master Mechanic, Robena Mine; H. Clyde Sechler, Master Mechanic, Robena Mine and A. L. Brautegam, Owner, Victoria Coal Co.



Joe Hedding, General Superintendent, Republic Steel Corporation; A Doctor from Uniontown; J. H. Sanford and R. C. Goss of the Ohio Brass Co.



Marshall J. Jones, Jones Coke & Briquette Company, and Mr. Maize, Safety Director, National Coal Association.

COAL OPERATORS GOLF ASSOCIATION

(Continued from Page 21)

meeting and were enjoyed by the bad golfers as well as by the better ones.

At dinner, after golf, the attendance was large and the guests were happy and charitable as they contributed enough money to buy a complete set of golf irons and woods, a golf bag, and a set of four mittens for the woods as a present to Jim Hamilton, who was Secretary of the Uniontown branch of the Association since it started.

Coal-dust suspended in water, known to the trade as slurry coal, has long been a troublesome waste in the coal-washing industry. Andrew F. Howe of St. Louis has worked out a method for its salvage, involving first screening it to remove too-coarse particles, then wringing it dry in a centrifuge, and finally spreading it on a conveyor that carries it through a special oven or "devolatilizer" where gases are driven off and used as fuel. The coked powder is then pressed into briquets for home or industrial use. Patent 2,474,251 has been issued on this invention.

Statement of the Ownership, Management, Circulation, etc., Required by the Act of Congress of August 24, 1912, As Amended by the Acts of March 3, 1933, and July 2, 1946
OF COAL MINING published monthly at Pittsburgh, Pa. for October 1, 1949.
State of Pennsylvania ss.
County of Allegheny ss.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Peter F. Jasik, who, having been duly sworn according to law, deposes and says that he is the owner of COAL MINING and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily, weekly, semiweekly or triweekly newspaper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the act of August 24, 1912, as amended by the acts of

March 3, 1933, and July 2, 1946 (section 537, Postal Laws and Regulations), printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Peter F. Jasik; Editor, Peter F. Jasik; Managing editor, Peter F. Jasik; Business manager, Peter, F. Jasik, Pittsburgh, Pa.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member must be given.) Peter F. Jasik, Pittsburgh, Pa.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also,

in cases where the stockholders or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceding the date shown above is . . . (This information is required from daily, weekly, semiweekly, and triweekly newspapers only.)

PETER F. JASIK

Sworn to and subscribed before me this 5th day of October, 1949. Horace E. Ewing, Notary 1951.



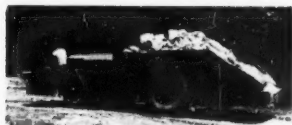
Carmichael's Mining Class. Left to right: J. S. Ellenberger, President of School Board; Steve Rodavitch, Joe King, Alex Kott, Steve Yuras, Andy Stzak, Ben Lipniski, William Groves, Instructor.

The new M.S.A. Gas-Fume Respirator for protection against mists, dusts, fumes, organic vapors and acid gases which occur in burning, spraying, pouring, welding, cutting and other industrial operations is fully described in an illustrated bulletin now available from Mine Safety Appliances Company.

Designed to combine protection with working comfort, the M.S.A. Gas-Fume Respirator employs twin replaceable filters which are mounted on the wearer's back. Back-mounting removes the filters from areas of heavy contaminant concentrations, and also permits unobstructed vision and complete working freedom. Other comfort and safety features are the "Comfo" sure-seal facepiece, guarded exhalation valve, and inhalation check valve. The entire unit weighs only 2 lbs. 14 oz. and is equipped with comfortable all-rubber headbands and neckbands for well-balanced fit.

For a complete description of the features and uses of this multi-purpose respirator, write for M.S.A. Bulletin No. CR-23 to this publication, direct to Mine Safety Appliances Company, Braddock, Thomas and Meade Streets, Pittsburgh 8, Pennsylvania.

The Joy Manufacturing Company, Oliver Building, Pittsburgh 22, Pa., announces the development of an improved, permissible, battery-type 5-SC Shuttle Car. This model is said to combine the flexibility and safety of the battery-type car with the constant power of the cable-reel shuttle car.



The 5-SC-6PD, as the car is designated, features a built-in connector which permits the operator to plug into a booster circuit at the unloading station. The power from the booster circuit is used to unload the shuttle car, while recharging the batteries at the same time. By this method, the drain on the batteries is reduced so much that hydraulic steering and hydraulically-adjustable elevating discharge are permitted. Furthermore, the batteries are claimed to produce the required power at the end of the shift as well as at the



For building a road adjacent to the coal tippie on their stripping project near Houtzdale, Pa., W. G. Moore & Son used this HD-5B Allis-Chalmers tractor. Highway Equipment Co., Pittsburgh, furnished this tractor and installed its Gar Wood Hydraulic Angleblade.



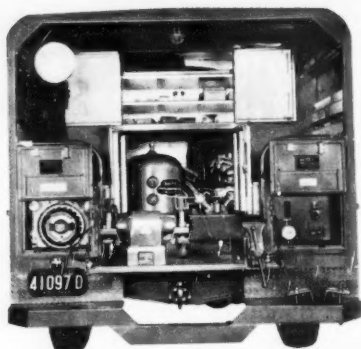
Type 12001 Lima High Lift Stripping Shovel in operation at mine of W. O. Gulbranson Inc., Houtzdale, Pa.

beginning.

Specifications of the 5-SC-6PD are as follows: height, 42"; length, 23' 0"; width, 87"; capacity without sideboards, 145 cu. ft.; ground clearance, 7½".

"Scientific Coal Preparation Methods and Equipment" is the title of

a 28-page Book No. 2355 published by Link-Belt Company, 300 W. Pershing Road, Chicago 9, containing installation views, flow sheet diagrams and other ideas for the low-cost handling and better preparation of coal at the mine. A copy of this new book will be forwarded to any interested reader upon request.



Davey Compressor, mounted on 4-wheel drive truck, especially designed for servicing equipment on a strip mine job, has space for driver and six passengers. It carries 300 amp. welder and 8 kw. a.c. generator driven by truck engine through a Davey power take-off; a high-pressure lubrication system powered by a Davey compressor; an oxyacetylene welding, cutting and brazing unit; 8-in. electric powered bench grinder portable arbor press, flood lights; 7500 lb. winch and other tools. Ask for Bulletin E-232. Davey Compressor Company, Kent, Ohio.



40 Ton Bottom-Dump Euclid Diesel driven truck hauling coal at the United Electric Coal Co., Duquoin, Illinois. The haul is two miles long.

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Other scales to 50 ton capacity. All truck scales complete with structural steel weigh-bridge. Replacement parts for most all makes of scales.	

MINE TIPPLE SCALES

5 Ton Tipple Scales	\$312.00
15 Ton Tipple Scales	400.00
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CRUSHERS

Stoker Coal Crusher	\$395.00
Coal Crushers, 60 to 200 tons per hour capacity	785.00
Coal Crushers, 90 to 375 tons per hour capacity	1785.00
Coal Crushers, 120 to 500 tons per hour capacity	2285.00

FEEDERS

15 to 35 ton capacity	\$150.00
28 to 60 ton capacity	190.00
50 to 100 ton capacity	375.00
100 to 175 ton capacity	800.00

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3-roll Troughing Idlers:			
14" belt width	\$18.50	24" belt	\$21.00
16" belt	19.00	30" belt	22.00
18" belt	20.00	36" belt	23.00
		42" belt	24.00
1-roll Return Idlers:			
24" belt width	8.25	36" belt	\$ 9.75
30" belt	9.00	42" belt	10.50
		48" belt	11.25

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Typical of how contractors have turned to coal stripping in recent years is the case of the Corte Construction Company, of Kimball, W. Va., made up of three brothers, Stelio, Ennio and Mirto, all ex-soldiers. One of three International TD-18 diesel crawler tractors with cable dozer the Corte brothers operate is shown at work on a big stripping job high up on the side of a mountain near Matoaka, W. Va. Like a big U, this strip stretches along the side of the mountain with the overburden being dumped into the valley. According to the Rish Equipment Company, which has furnished most of the equipment on this job, the overburden averages 50 feet in thickness. Coal comes from a seam four to five feet thick and is the high grade Pocahontas No. 3 coal. Some 325 tons are mined each day and trucked a mile away to a cleaning plant at Matoaka.



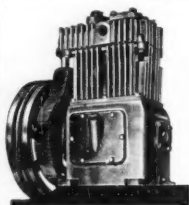
The famed Trail of the Lonesome Pine Country in southwest Virginia's rugged mountains is the locale of this coal stripping operation conducted by Turner Brothers, two miles from Wise, Va. Not far away is Big Stone Gap, home of John W. Fox, novelist, who is celebrated for his mountain novels, especially the Trail of the Lonesome Pine. Marvin J. Turner is shown removing overburden from the rich coal seam with an International TD-18 diesel crawler tractor and Heil bulldozer. According to Rish Equipment Company, International distributor in that area, some 15 railroad cars of coal from the Blair seam, three feet thick, are mined daily. Coal is first crushed before going to the tipple. Turner Brothers headquarter at Roanoke, Va., and are primarily dirt and road contractors.



Deep in the Mountains of Wyoming County, W. Va., the Pocahontas Fuel Company is putting in what will be the second largest coal preparation plant in the state. Here two International TD-17 diesel crawler tractors, sold in the two Virginias by the Rish Equipment Company, with 12-foot bulldozers, are shown gouging out a roadbed for the new operation, located near Itmann. Lilly Construction Company, of Bluefield, W. Va., has the contract for that particular job. Two miles of tram road will lead down from the mine opening to the coal preparation plant and slate dump.



The Carbon Fuel Company maintains a big coal stockpile at Marmet on the Kanawha River in West Virginia, the coal coming from its own mine at Carbon, W. Va. Belt conveyors are used to load barges from the stockpile and here an International TD-14 tractor with bulldozer is busily engaged in pushing coal into big hoppers from which it is raised by loaders to conveyor belts.



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Motors 220/440 v. or 2200 v.—3 ph., 60 cy.

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1	200	Westinghouse	720
2	200	Westinghouse	1200
1	100	Westinghouse	700
1	100	General Electric	900
1	100	Westinghouse	600
1	100	General Electric	1800
1	100	Reliance	580
1	100	Delco	1200
2	90	Westinghouse	650
4	75	Westinghouse	720
1	75	Westinghouse	1200
1	60	Westinghouse	1200
1 NEW	50	General Electric	1800
3	40	Westinghouse	900
2	30	Westinghouse	720

125 V. DC M.G. Sets

1—100 kw. G.E. 125 v. 900 rpm. 220/440 v.
3 ph. 60 cy. AC Syn.
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3 ph. 60 cy. AC.
1—75 kw. West. 125 v. 1200 rpm. 220/440 v.
3 ph. 60 cy.

D.C. Generators—250 v. D.C.

No.	KW	Make	Speed
1	250	West.	1200
1	175	G. E.	700
3 New	135	G. E.	1150
1	125	West.	860
1	125	Allis-Chal.	1150
1	110	West.	700
1	100	Allis-Chal.	1150
1	75	West.	750
1	40	G. E.	720

A.C. Generators—220/400/440/220 v.

No.	KW	Make	Speed
1	125	West.	257
1	460	Elec. Machy.	120

Pumps With A.C. or D.C. Motors

Qua.	Gpm.	Head	Kind	Make
3	1200	300	Cent.	Worthington
3	1100	323	Cent.	Worthington
3	1000	336	Cent.	Worthington

D.C. Motors—230 volts

No.	H.P.	Make	RPM	Type
1	175	G. E.	560	MD

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with 4/1.2 hp., 1750/1150 rpm.. 220/
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2—4000 cfm 3" stat. pres. Sturtevant 2

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31—6000 cfm Sturtevant Bul. No. 812389,

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hp. 1765/1175 rpm.. 220/440 v. AC

West. TEFC Motors.

2—6000 cfm Sturtevant 1.65" stat. pres.

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2 speed motor.

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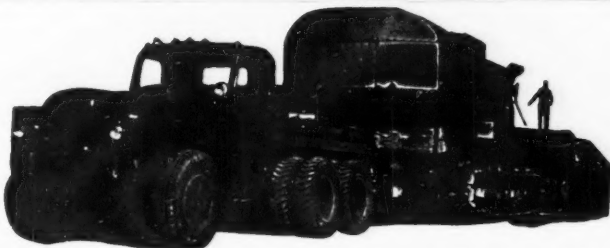
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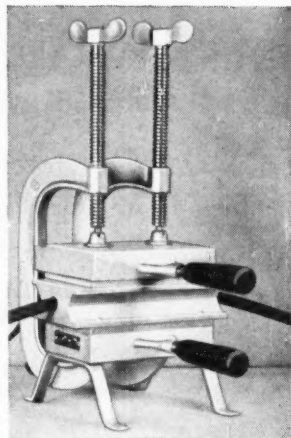
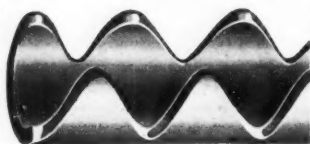
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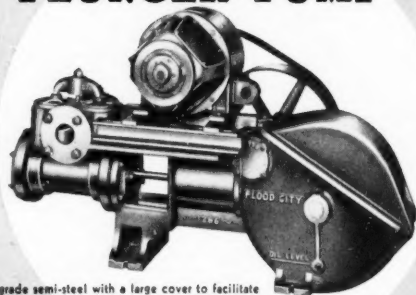
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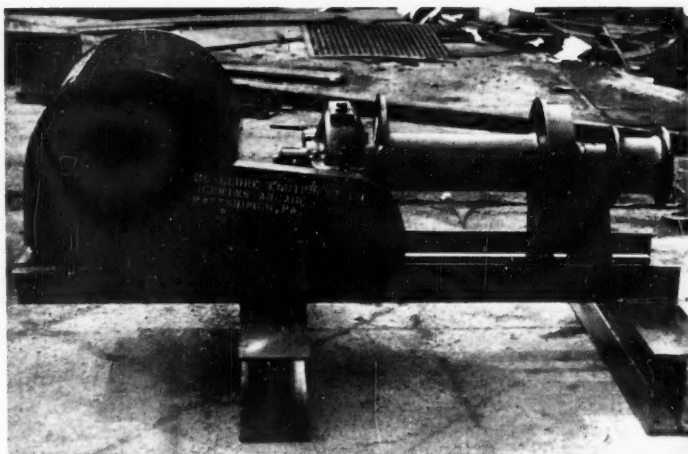
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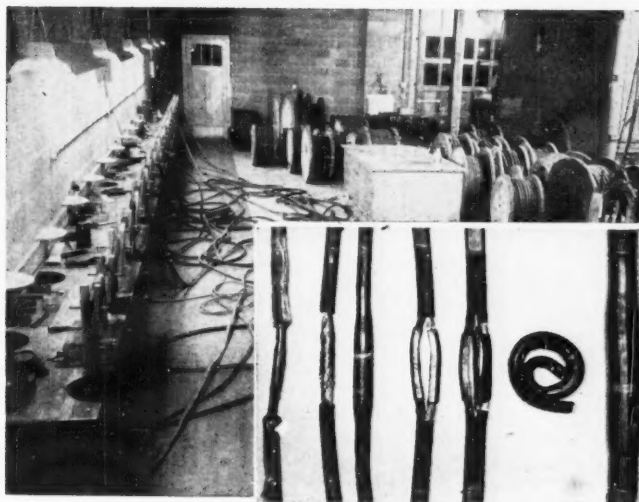
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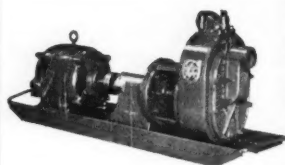
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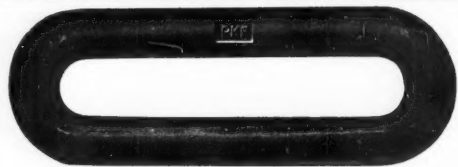


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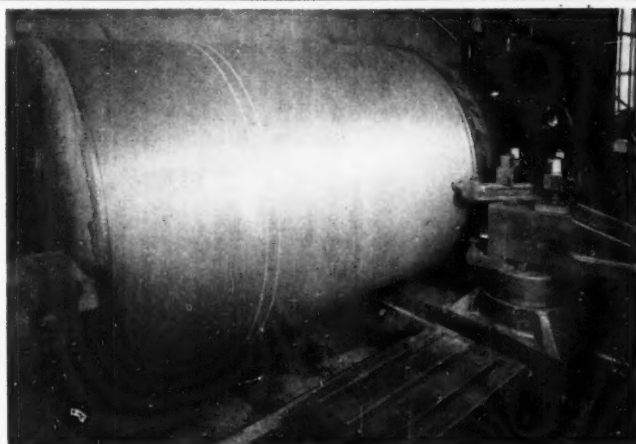
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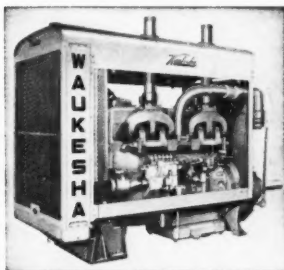
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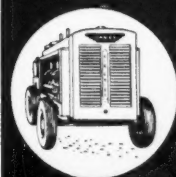


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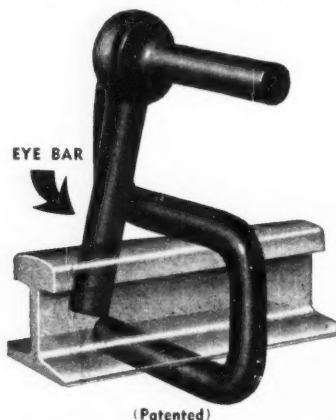
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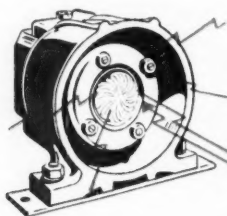
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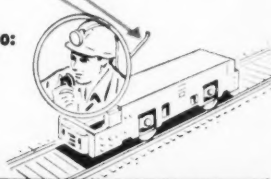


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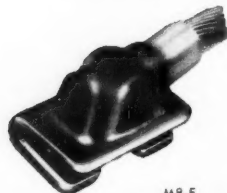
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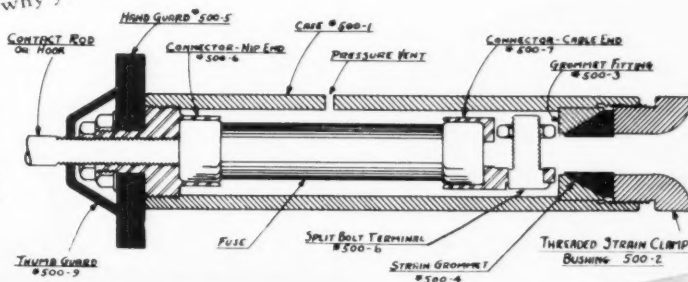
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